ALL SHORE INDUSTRIES

Specifications

ASI-T-250EA2VN/G

(ASI-V-24032FQ25-EC-IWD/G)

Description:

- 2.5”, 240 x RGB x 320 dots, , TFT LCD module.
- With white LED backlight
- VIDEO input.

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Catalogue

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Version

Date	version	content
2008-12-28	VER:1.01	The Third Version

1. Profile：

color TFT LCD Modul

2.5" color TFT LCD module is composed of driver board and 2.5" TFT display: provides users with CVBS \S-VIDEO signal input and automatic identifying and converting of NTSC/PAL systems, built-in OSD(on-screen display) function, and the OSD menu offers adjustment of brightness, contrast and color. The power control IC is designed for better reliability.

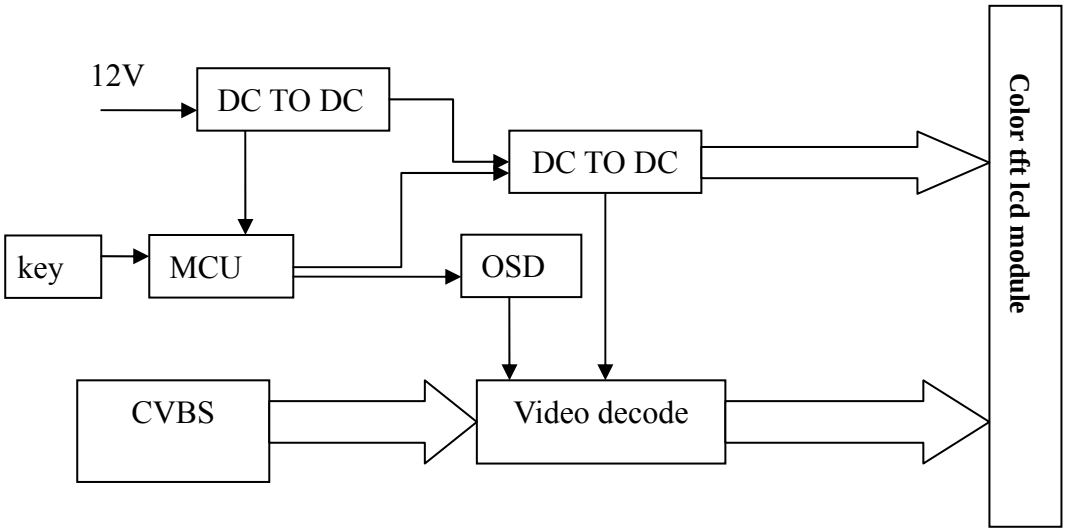
2. Application：

- Office electronic equipment
- Apparatus & measurement appliance
- Machinery
- Audiovisual（Display for car、Portable DVD、Long-distance terminal、LCD TV）
- Home appliance（Video door phone、Video telephone）
- Don't use it for high-sophisticated product which need high requirement in term of reliability & stability &accuracy.

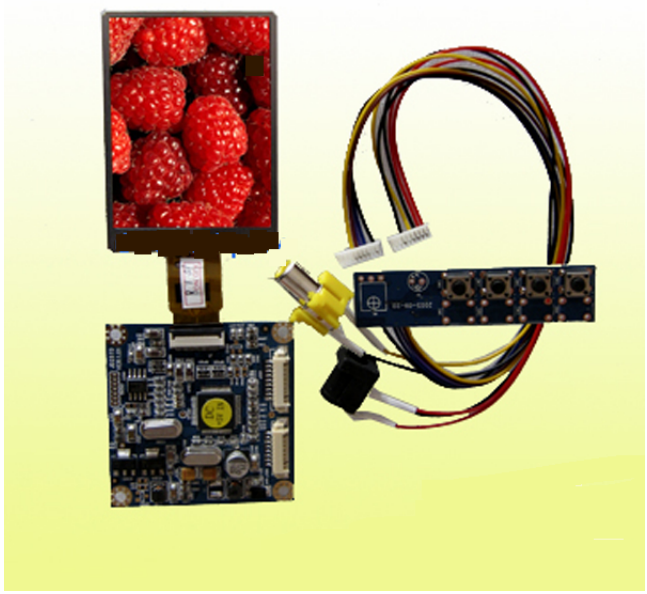
3. Main parameter：

- TFT Display：2.5" TFT LCD Display :
- Backlight：LED
- Resolution：320（H）X 3(RGB) X240（V）
- View angle（U/D/L/R）：(20/50/40/40)
- Luminance： 250 cd/m^2
- System：PAL/NTSC (automatic identifying and converting)
- Signal input：VIDEO, Y/C
- Power input voltage：DC 12V±25% （Type12V 120Ma ± 30mA）
- Active Area (mm)：50.91（H）×38.16（V）
- Outside dimension of display (mm)：61.7(W)×44.5（H）×2.68（D）
- Structural dimension of PCB(mm)：50.0(W)×50.0（H）×8.6（D）
- Operation temperature：-10℃ ~+60℃
- Relative humidity：5~95% RH
- Storage temperature：-20℃~+70℃

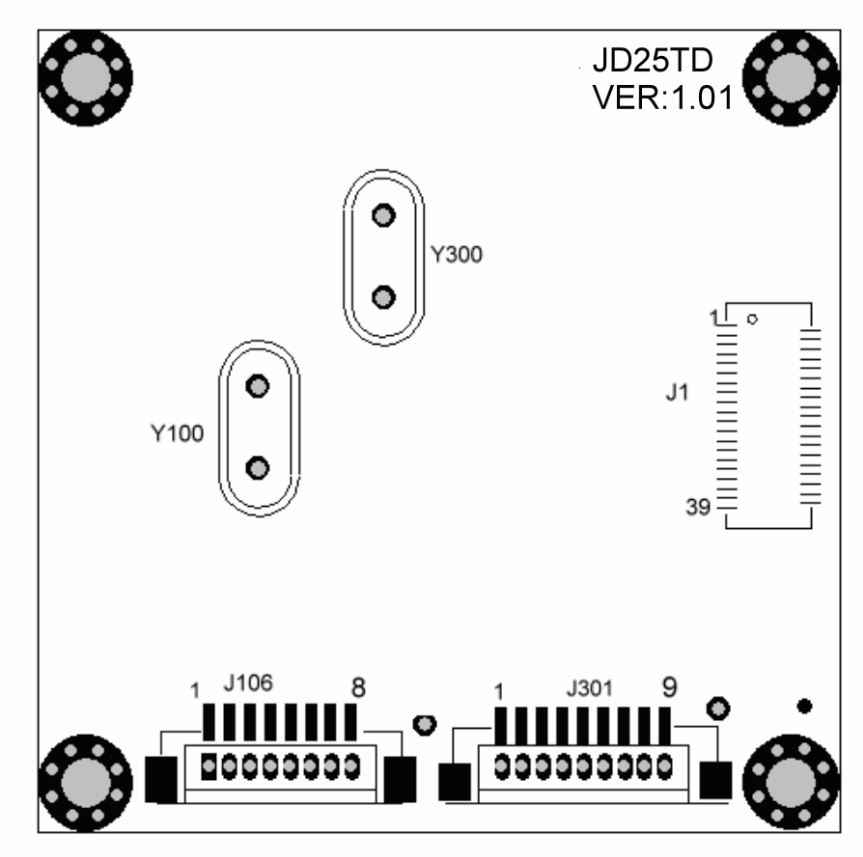
4. Block diagram：



Module picture:



5. Wiring diagram:



6. Connector definition of driver board:

6.1 J106

Pin no.	Symbol.	In/Out	Description	Remark
1	12V	I	12Vpower input	
2	GND	-	Ground	
3	GND	-	Ground	
4	VIDEO2	I	Video signal input 2	
5	VIDEO1	I	Video signal input 1	
6	GND	-	Ground	
7	S/C	I	C signal input	
8	S/Y	I	Y signal input	

6.2 J301

Pin no.	Symbol	In/Out	Description	Remark
1	GND	-	Ground	
2	IR	I	Receive	
3	KEY DOWN	I	Key-	
4	KEY UP	I	Key+	
5	MENU	I	Menu	
6	ON/OFF	I	Power switch	
7	+5V MCU	O	+5V output	
8	LED1	O	LED 1output	
9	LED2	O	LED 2output	

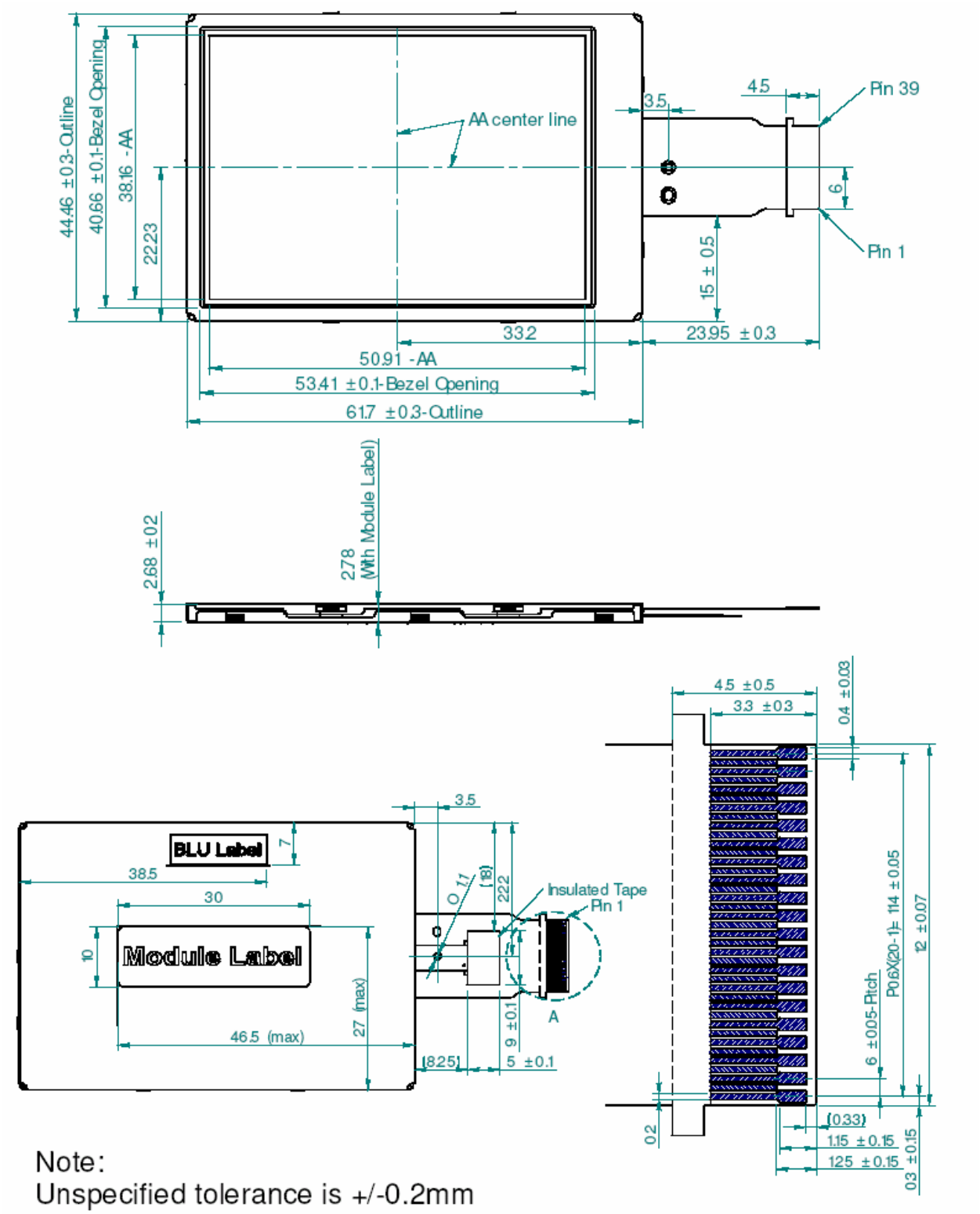
6.3 J104

Pin	Symbol	I/O	Description	Remark
1	CP3	C	Capacitor for charge pump	
2	CP4	C	Capacitor for charge pump	
3	CP5	C	Capacitor for charge pump	
4	CP6	C	Capacitor for charge pump	
5	CP7	C	Capacitor for charge pump	
6	CP8	C	Capacitor for charge pump	
7	NC	-	No connection	
8	PCDL	C	Capacitor for pre-charge data signal low	
9	PCDH	C	Capacitor for pre-charge data signal high	
10	VCOML	C	Capacitor for VCOM low	
11	VCOMH	C	Capacitor for VCOM high	
12	AGND	-	Analog ground	
13	PVDD	C	Regulation capacitor for charge pump	
14	AVDD	C	Regulation capacitor for analog voltage	
15	CP1	C	Capacitor for charge pump	
16	CP2	C	Capacitor for charge pump	
17	PWM	O	Power transistor gate signal for the boost converter	

18	FB	I	Main boost regulator feedback input	
19	LED-	-	LED power: cathode	
20	LED+	-	LED power: anode	
21	NC	-	No connection	
22	GND	-	Ground	
23	VCC	-	Power supply	
24	VD	I	Vertical sync input	
25	HD	I	Horizontal sync input	
26	DCLK	I	Clock signal，latch data onto line latches at the rising	
27	DIN0	I	Data input	
28	DIN1	I	Data input	
29	DIN2	I	Data input	
30	DIN3	I	Data input	
31	DIN4	I	Data input	
32	DIN5	I	Data input	
33	DIN6	I	Data input	
34	DIN7	I	Data input	
35	SDA	I/O	Serial interface data line	
36	SCL	I	Serial interface clock line	
37	SCEN	I	Serial interface chip enable line	
38	SHDB	I	Sleep mode setting pin	
39	GRESTB	I	Global reset pin	

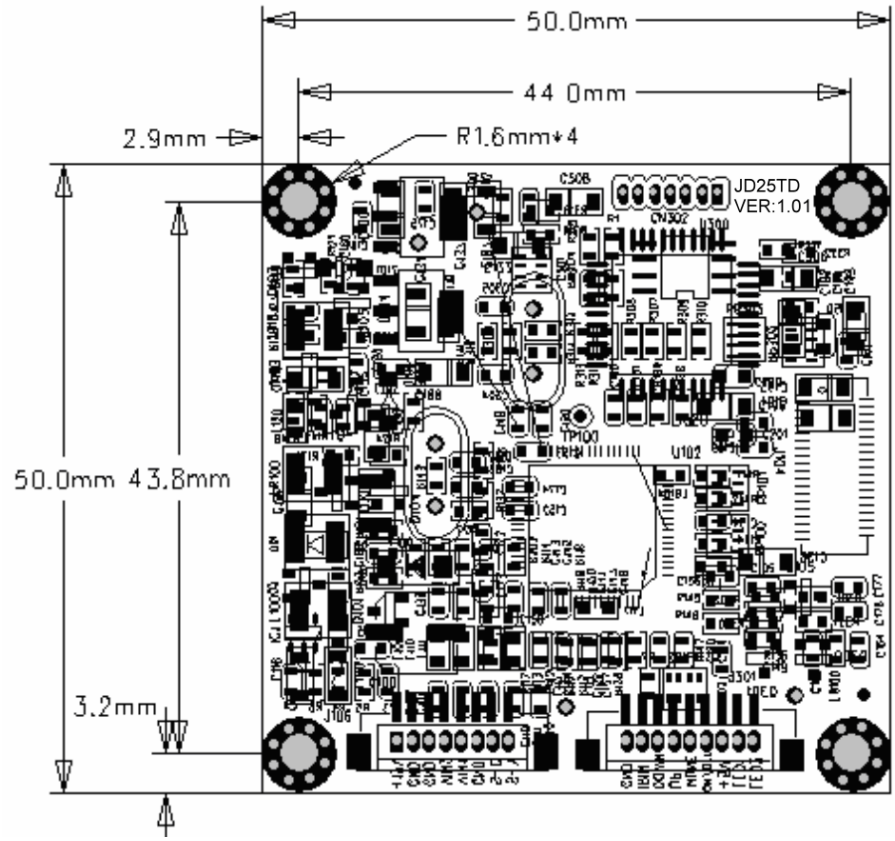
7.Structural diagram：

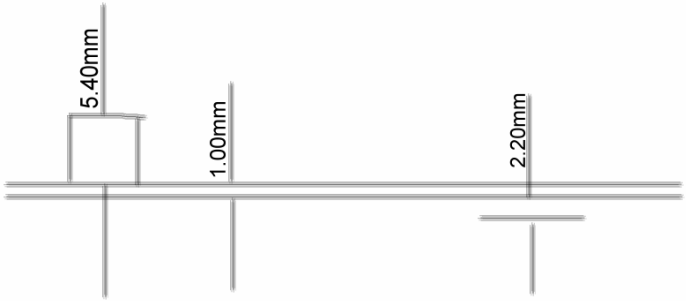
7.1LCD panel



Note:
Unspecified tolerance is +/-0.2mm

7.2 PCB


50.0mm
44.0mm
2.9mm
R1.6mm*4
50.0mm
43.8mm
3.2mm
JD25TD
VER:1.01


5.40mm
1.00mm
2.20mm

8. 2.5" TFT- LCD PANEL Inspection standard:

Aim：Establishing the standard of PANLE for inspecting material & progress and for clients' inspection.

Scope：Apply to 2.5″ TFT LCD

Content：

8.1. Inspection standard and method：

8.1.1. The method and determinant of inspecting the nick of panel of LCD：

8.1.1.1. Inspect vertically (or at 45 ° angle from left/right)under the light tube (the power is 20 W) in the distance of 30cm to the panel. If there is no nick , it is "OK". Otherwise "NG".

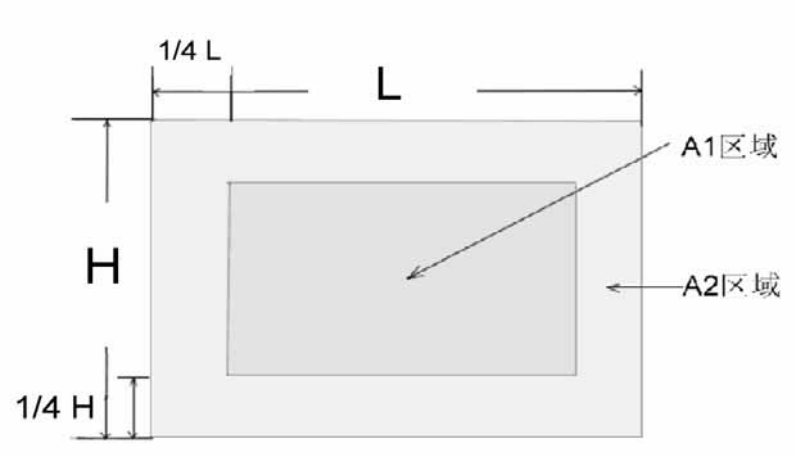
8.1.2. The method and determinative for black & white & color spots for the Panel of LCD：

8.1.2.1. Inspection methods

8.1.2.1.1. Black spots：under status of denote light，set the MASK of black spot inspection near the black spot then compare the big and small by eyes.

8.1.2.1.2. White & Color spots: under status of denote light, set the Mask of black spot inspection on the white spot(or color spot) then inspect them by eyes if it can hide.

8.1.2.2. Division of LCD Panel



Remark： A1：The center of the available area for the picture

A2：The edge of the available area for the picture（around the central area）

8.1.3. Determinant Choice

Spot Diameter（mm）		Allowed Area	
		A1	A2
Black Spot	d≤0.15	Irrespective	Irrespective
	0.15<d≤0.3	4	4
	0.3<d≤0.5	2	3
	0.5d>0.8	0	2
White or color spot	d≤0.15	Irrespective	Irrespective
	0.15<d≤0.3	3	3
	0.3<d≤0.5	1	2
	0.5d>0.8	0	1

Remark: 1. Size: Average Diameter=（Max. Diameter + Min. Diameter）/2

2. Using information above as a standard in order to judge while the spot are dense.

3. Black & White spot：To judge the obvious spots through the change of voltage by comparison。

4. Total quantity of Black & white & color spot: A1+A2 ≤ 4。

9.Packing

TBD

10.Attention:

1. The voltage of supply power don't exceed maxmium limit.
2. The connector can’t connect board in reverse, or the board will be burnt and the products can't funtion well.
3. Please don’t touch it in order to keep your skin non-burn when you electrify the board(there is high voltage on the board).
4. It is a electronic product, so you need to take anti-static measure when you operate it.
5. 2.5" TFT-LCD panel is a glasswork, place carefully ,broken for fear.
6. The connection is “FPC”, which connect 2.5” TFT-LCD panel with PCB, Please operate it carefully in order to keep it well.
7. Don't touch the pin of "variable resistor" when you adjust "VR".